Red Lake County Central River Watch Binder

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Step-by-Step Sampling Guide

We start off the sampling trip by dropping the Van Dorn into the water. After it is in the river, you must rinse it three times with the river water. On the third rinse, you drop the weight, which will shut the doors on either side of the Van Doren. Finally, you pull it back up and use the water samples to find turbidity and water clarity using the secchi tube and the turbidimeter. After filling the secchi tube and turbidimeter with river water, you rinse the Van Doren with distilled water once.

Next, we drop the sonde into the water with just the sensors in the water. When taking the sonde out of the case, make sure to be careful and also switch the cap out for the guard. Then, you wait for the numbers to settle and then write down the statistics. Some statistics you find using the sonde are conductivity, dissolved oxygen (DO), and potential hydrogen (pH). After you have these statistics, bring it back up and rinse the sensors with tap water. Then switch the guard back to the cap, which should be partially filled with tap water.

You fill the secchi tube up with river water from the Van Doren to start the process of using the tube. After that, you will slowly pull a rope up with a disc until you can see it. After you can see the disc, you look on the side of the tube, which is numbered 1-100, and record the number. The secchi tube is used for testing water clarity.

To use the turbidimeter, you start by grabbing the glass sample tube by grabbing the bottom with a wipe to make sure the machine does not pick up your fingerprints. You then open the small sampling tube and fill it with river water from the Van Doren. After getting the water sample, you walk over to the machine and take off the wipe and hold it by the cap. Then put

the sampling tube into the machine with the arrow in a certain position and shut the trapdoor. You then turn on the turbidimeter and click the button that says ‘Read’. After you get the turbidity of the water, you record the number and rinse it with distilled water once.

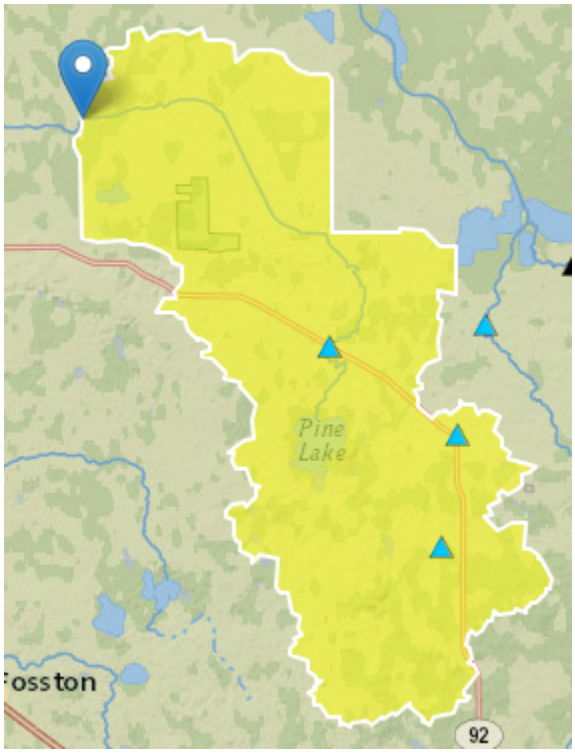
Depending on the site, the tape down could be handheld or attached to the side of the bridge. The tape down has a weight attached to the end of the measuring tape so it will go down smoother and not swing too much. You crank a handle on the side which will slowly drop the weight attached to the tape down closer to the water. Once the very bottom of the tape down hits the water, you record the number at the edge off the metal piece on the tape down. You record that number into the book and then you bring it back up.

The book is usually done by the team captain for river watch. The book is the place where you keep all of the stats from the instruments for river watch. All of the stuff stated above has at least one thing that you have to put in the book for stats.

Individual Site Descriptions

Lost 28

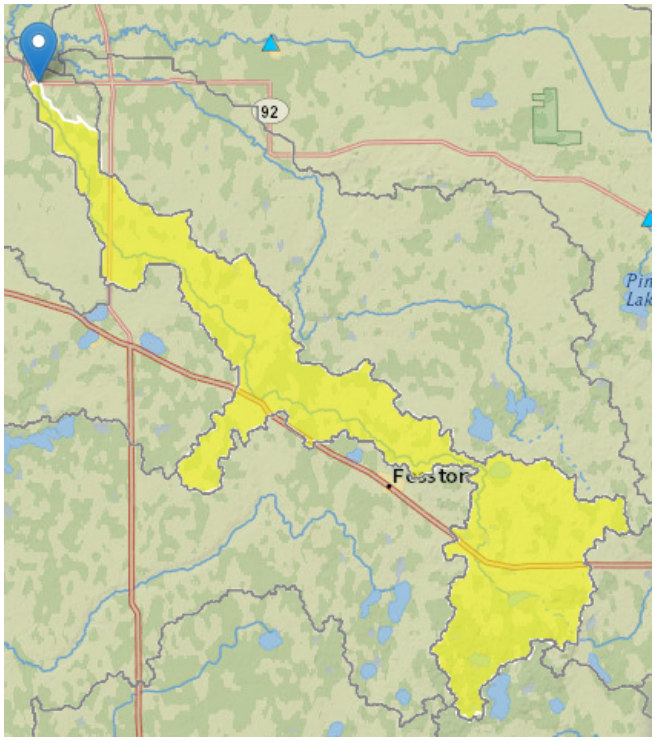
- Lost River
- S007-849
- 47.84, -95.69
- County Road 28
- Drainage Area below
- Red Lake River Watershed
- Drainage Area below



Lost 118

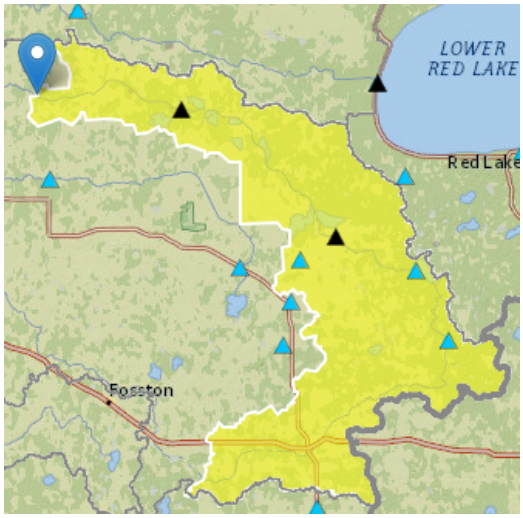
- Clearwater River
- S002-728

- 47.832744, -96.052534
- Lost River at CR 118 crossing, 3 miles NW of Brooks
- Lost River
- Drainage Area below



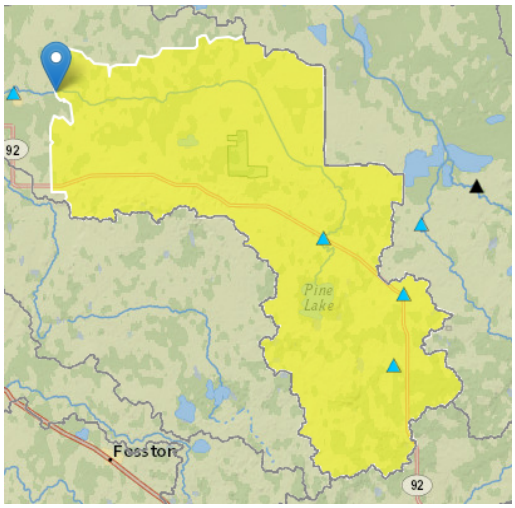
OK 15

- Clearwater River
- S002-916
- 47.941103, -95.881257
- Bridge crossing at Clearwater River on CR 127; 7.5 miles north of Oklee
- Clearwater River
- Drainage Area below



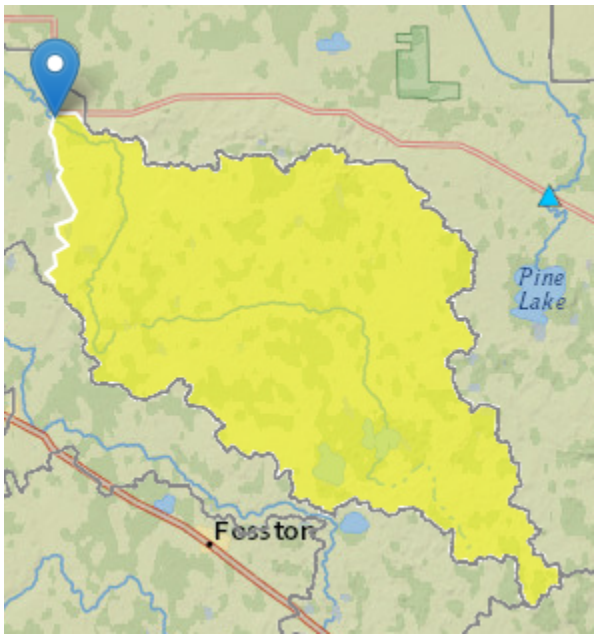
OK 25

- Lost River
- S006-390
- 47.8431, -95.8118
- Bridge crossing at Lost River at 310th ave SE; 1/2 mile south of CR 6, 2 miles east of Oklee
- Clearwater River
- Drainage Area below



OK 30

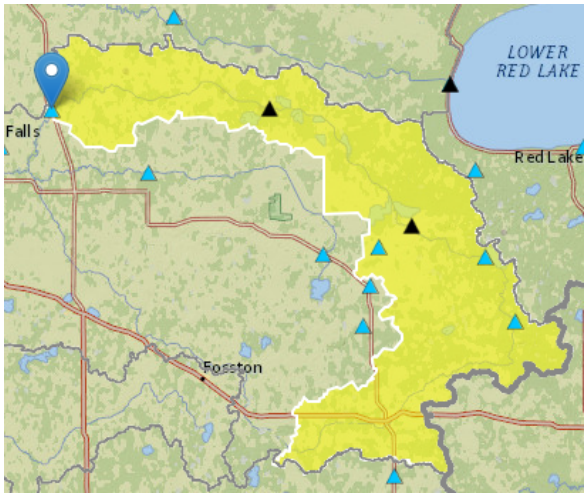
- Hill River
- S002-982
- 47.7735, -95.8585
- Culvert crossing at Hill River and 290th Ave SE; 5 miles south of Oklee
- Clearwater River
- Drainage Area below



PL 10

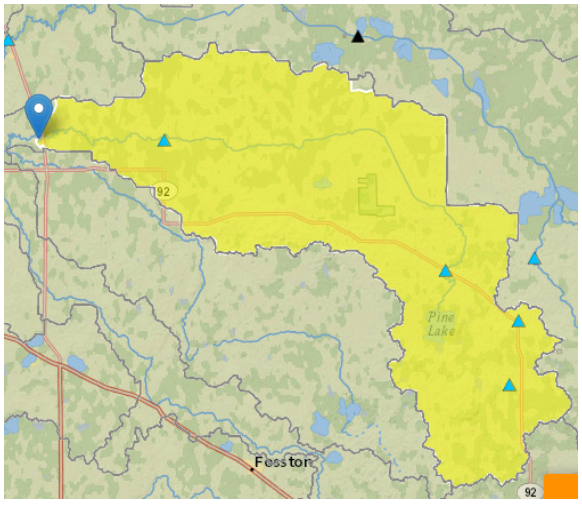
- Clearwater River
- S002-124
- -47.9233, -96.0459
- Bridge crossing at Clearwater River & Highway 59 frontage Road; North side of Plummer

- Clearwater River
- Drainage Area below



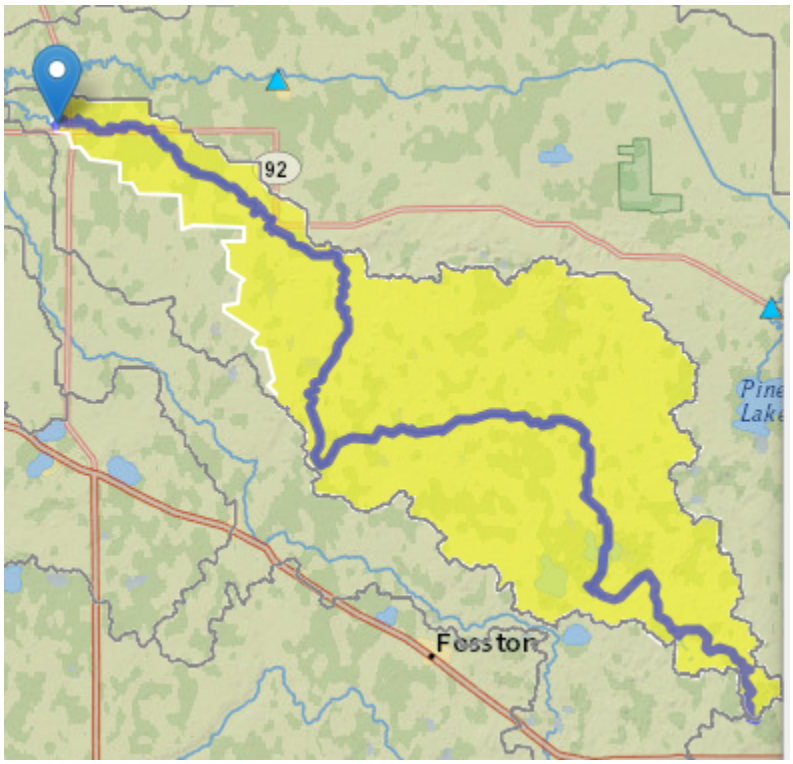
PL 30

- Lost River
- S002-133
- -47.8432, -96.0100
- Bridge crossing at Lost River and 1 1/4 mile north of Brooks
- Clearwater River
- Drainage Area below

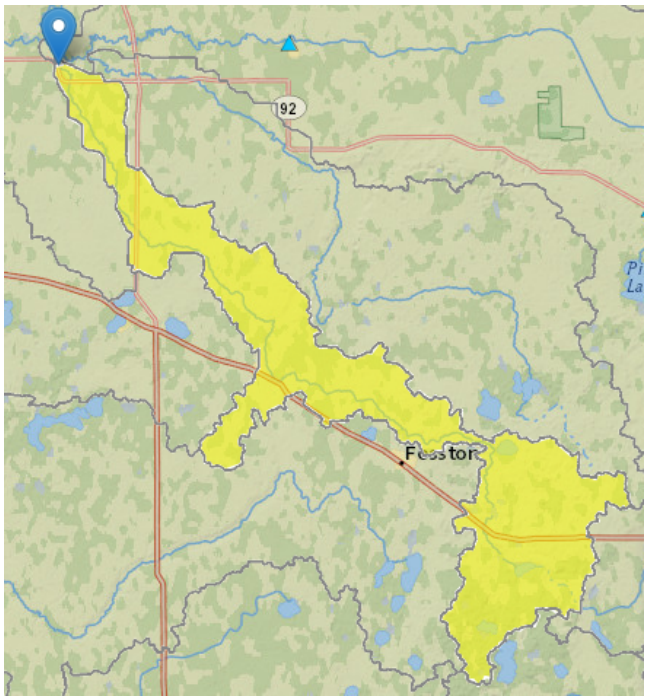


PL 40

- Hill River
- S002-134
- -47.8215, -96.096
- Culvert crossing at Hill River and 220th Ave SE; 1/4 mile north of Brooks
- Clearwater River
- Drainage Area below



PR 118

- Clearwater River
- S007-608
- -47.8277, -96.0749

- Poplar River at CR-118, 3.5 miles West of Brooks
- Poplar River
- Drainage Area below